

REMARKS

This Amendment is being filed in response to the Office Action mailed from the U.S. Patent and Trademark Office on October 18, 2005, in which claims 1-6, 8-24 and 55-67 were allowed, and in which claims 68-84 were rejected. With this Amendment, claims 68, 80 and 82-84 are amended. Thus, Applicants respectfully request reconsideration and allowance of previously allowed claims 1-6, 8-24 and 55-67 and pending claims 68-84.

In the Office Action, claims 1-6, 8-24 and 55-67 were allowed. Also, the Office Action stated that the indicated allowability of claims 68-84 was withdrawn in view of the newly discovered references to U.S. Patent No. 6,162,530 to Xiao et al, U.S. Publication No. 2003/0059742 to Webster et al., and U.S. Publication No. 2004/0131537 to Yang et al.

The Office Action has rejected claims 68-84 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,162,530 to Xiao et al.; U.S. Patent No. 6,863,943 to Wang et al.; U.S. Publication No. 2004/0131537 to Yang et al.; and U.S. Publication No. 2003/0059742 to Webster et al. The Office Action has also rejected claims 71 and 81 under 35 U.S.C. § 103(a) as being obvious over the '530 patent to Xiao et al.

The Office Action states on pages 2-3:

Claims 68-70, 72-80, and 82-84 are rejected under 35 U.S.C. 102(b) as being anticipated by Xiao et al (US 6,162,530). Xiao teaches nanostructured oxide materials comprising structures such as nanorods or nanofibers which are interengaged as shown in the figures. Regarding claims 69 and 70, the nanomaterial may comprise a doped oxide, such as MgO doped with Co, Fe, or Pt. Regarding claims 74 and 75, the intended use of the material does not structurally define over the prior art. Regarding claims 76-79, the fibers have diameters of less than about 100 nm, and the bird's nest morphology as shown in Figure 6 has a diameter of about 10 microns. Also, the fibers may have a length of approximately 0.5 microns. Regarding the angles and manner in which the nanostructures are oriented, the figures give multiple examples of angles and orientations.

Claims 80, and 82-84 are rejected under 35 U.S.C. 102(e) as being anticipated by Wang et al (US 6,863,943). Wang teaches semiconducting oxide nanostructures comprising a plurality of helical nanostructures formed from metal oxides, and as shown in the figures, the structures are interconnected and form a material or network. Some nanostructures are shown to be parallel to one another, while others are distributed at angles.

Claims 80, and 82 are rejected under 35 U.S.C. 102(e) as being anticipated by Yang et al (US 2004/0131537). Yang teaches a nanotape comprising multiple metal oxide nanoribbons aligned parallel to one another. The tape is considered a network.

Claim 80 is rejected under 35 U.S.C. 102(e) as being anticipated by Webster et al (US 2003/0059742). Webster teaches a metal oxide nanofiber material wherein the fibers are interconnected to form a material or network.

To anticipate a claim, the reference must teach every element of the claim. M.P.E.P.

2131. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987); M.P.E.P. 2131. "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989); M.P.E.P. 2131.

With this Amendment, Applicants have amended independent claims 68 and 80 to claim a metal oxide material comprising a first metallic oxide and **at least one second metallic oxide having an end attached to the first metallic oxide**. Amended claims 68-84 are not disclosed, taught or suggested by the cited prior art references of U.S. Patent No. 6,162,530 to Xiao et al.; U.S. Patent No. 6,863,943 to Wang et al.; U.S. Publication No. 2004/0131537 to Yang et al.; and U.S. Publication No. 2003/0059742 to Webster et al.

Regarding independent claim 68, the '530 patent to Xiao et al. does not disclose or teach a metal oxide material comprising a first metallic oxide in the form of a three-dimensional linear nanostructure and **at least one second metallic oxide** in the form of a three-dimensional linear nanostructure **having an end attached to the first metallic oxide** and extending in a lateral direction from the first metallic oxide. Further, the figures in the '530 patent to Xiao et al. do not disclose or teach such a metal oxide material. Thus, amended independent claim 68 contains allowable subject matter. Dependent claims 69-79 now depend from an allowable base claim and are allowable as well. Thus, Applicants respectfully request reconsideration and allowance of pending claims 68-79.

Regarding independent claim 80, U.S. Patent No. 6,863,943 to Wang et al. or U.S. Publication No. 2003/0059742 to Webster et al. do not disclose or teach a metal oxide material

comprising a plurality of three-dimensional nanostructures formed from a first metallic oxide and **at least one second metallic oxide having an end attached to the first metallic oxide**, wherein the plurality of three-dimensional nanostructures are interconnected to form a network. Further, the figures in the '943 patent to Wang et al. or U.S. Publication No. 2003/0059742 to Webster et al. do not disclose or teach such a metal oxide material. Thus, amended independent claim 80 contains allowable subject matter. Dependent claims 81-84 now depend from an allowable base claim and are allowable as well. With this Amendment, dependent claims 82-84 are amended for clarity. Thus, Applicants respectfully request reconsideration and allowance of pending claims 80-84.

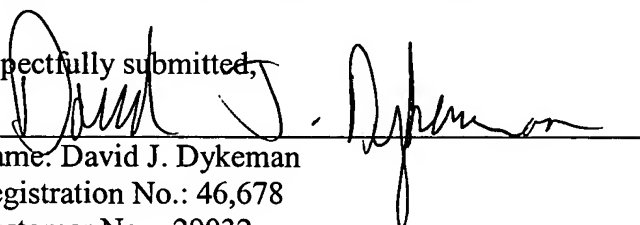
Support for the amendments to the claims 68, 80 and 82-84 is found throughout Applicants' specification and drawings as filed, including at least page 15, lines 21-28; page 16, lines 14-19; page 17, lines 25-27; page 29, lines 3-21; and page 36, line 6 – page 37, line 3.

Applicants respectfully request reconsideration and allowance of previously allowed claims 1-6, 8-24 and 55-67 and pending claims 68-84. Applicants have made an earnest effort to respond to all issues raised in the Office Action of October 18, 2005, and to place all claims presented in condition for allowance. No amendment made was for the purpose of narrowing the scope of any claim, unless Applicants have argued herein that such amendment was made to distinguish over a particular reference or combination of references.

Applicants submit that all claims have been placed in a condition for allowance, and respectfully request an early and favorable action by the Examiner. If the Examiner believes that a telephone conversation with Applicants' attorney would expedite prosecution of this application, the Examiner is cordially invited to call the undersigned attorney of record.

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Respectfully submitted,



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